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CANADA AND ITS NATIONAL HIGHWAY.

A PAPER READ BEFORE THE SOCIETY OF ARTS, MARCH 23, 1886,

BY

ALEXANDER BEGG.

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Canada is said to have been discovered by Sebastian Cabot in 1497, and in 1525 the French took possession of the country. In 1535, Jacques Cartier explored the River St. Lawrence, but it was not till 1608 that the first settlement of white men took place on the spot since known by the historic name of Quebec. In 1629, Quebec was captured by the British, and held by them till 1632, when it was retroceded to France. In 1759, it was again captured by the British forces under Wolfe, and four years later the whole of Canada became British territory by the Treaty of Paris. So that, with the exception of Quebec, Canada remained in the power of the French from the time they first took possession of the country till 1673, a period of 238 years. In 1774, a nominee council was established by Act of the British Parliament, the country in the interim having been governed by military authority. In 1791, the provinces of Upper and Lower Canada (now known as Ontario and Quebec) were created, with separate although similar forms of Government, consisting each of a Legislative Council, appointed by the Crown, and a House of Assembly, elected by the people. This plan of governing the country did not prove a success. The Houses of Assembly, especially that of Lower Canada, were in almost constant conflict with the Executive Government, until finally, in 1838, this unsatisfactory state of affairs culminated in a rebellion. On the suppression of the insurrection, the two provinces were united

by Act of Parliament under one form of Government, consisting of a Legislative Council of twenty, and a House of Assembly of eighty-four members. The union thus effected did not, however, prove a harmonious one, owing to a bitter feeling of antagonism which arose between the members for Upper and Lower Canada. Matters continued in this unsatisfactory state till 1864, when a practical deadlock seemed inevitable. Then it was that the scheme for the confederation of the British North American colonies came to the fore,

In the conception, perfecting, and carrying out of this grand scheme of confederation, we find taking a prominent part such men as Sir John A. Macdonald, Sir Charles Tupper (our distinguished chairman), Sir George E. Cartier, Hon. George Brown, Sir P. Etienne Taché, Sir Alexander Galt, Sir Leonard Tilley, Sir Adams Archibald, and many other eminent colonial statesmen. These, without exception, might have been seen sinking personal and political differences, and joining hands to bring about that great scheme of union in British North America which has not only exalted Canada to the proud position she now occupies, but has also materially tended to strengthen her loyalty to the mother country. In 1867, the British North America Act was passed, and this was in truth the certificate of birth of the Dominion of Canada. At that time the confederation consisted only of the provinces of Ontario, Quebec, Nova

Scotia, and New Brunswick, but in 1870 the province of Manitoba was created, and in the years 1871 and 1873 respectively, British Columbia and Prince Edward Island were incorporated in the Union. One of the first acts of the Dominion Government, under the leadership of Sir John A. Macdonald, was to send a deputation to England, in 1868, to negotiate with the Imperial authorities for the admission of Rupert's Land (now known as the North-West Territories of Canada) into confederation. Previous to that time, negotiations had been going on between the Canadian and Imperial authorities for the opening up of the North-West, and in 1865, Lord Monk forwarded copies of papers on the subject to the Right Hon. E. Cardwell, Secretary of State. Private offers from capitalists had also been made to purchase the rights of the Hudson Bay Company in the territory, so as to acquire a title to the land; but in 1866, Lord Carnarvon stepped in, and put a stop to any further negotiation of the kind. Lord Carnarvon's decision was contained in the following words:—"That no new arrangements relative to the Hudson's Bay Company are possible, pending the discussions on the proposed confederation of the British North American Provinces." The delegates sent to England in 1868 were successful, and as the result of their mission, Rupert's Land became a part of the Dominion of Canada on the 15th July, 1870. It is not necessary for the purpose of this paper to recapitulate all the particulars and incidents relating to the transfer of the North-West to the Dominion, more than to say that Canada paid to the Hudson Bay Company £300,000 sterling for the surrender of their rights, and agreed to the reservation for the benefit of the company of a twentieth part of all lands set out for settlement within fifty years after the surrender. Having thus acquired a vast territory, reaching as far west as the Rocky Mountains, the next step taken by the Government of Canada was to secure a foot-hold on the Pacific Coast, and after a series of negotiations with British Columbia, that province was incorporated in the Dominion on the 16th May, 1871.

One of the clauses contained in the agreement, under which British Columbia entered Confederation, provided for the building of the Canadian Pacific Railway within ten years. Under this arrangement the railway should have been completed in 1881, and probably would have been had the Canadian Government from the first followed out the plan it has in recent years adopted: that is, had it handed

over the work to a body of energetic capitalists instead of endeavouring to carry it on as a Government undertaking. Sir John A. Macdonald, as early as 1871, foresaw this, and had almost concluded arrangements with a body of capitalists to carry on and complete the railway by 1881, when his Government was defeated in 1872. His successors strove to prosecute the work as a Government enterprise, but at the end of over six years' trial the actual completion of the road did not seem to the public of Canada to be within measurable distance.

Sir John A. Macdonald, on regaining power in 1878, endeavoured soon after to carry out his former policy, and place the construction of the national highway in the hands of energetic and competent capitalists. In spite of the most strenuous opposition, the Macdonald Government carried their point, and in 1880 Sir Charles Tupper, the then Minister of Railways and Canals, presented to the Parliament of the Dominion the text of the agreement between the Government and Mr. (now Sir) George Stephen and his colleagues for the construction of the Canadian Pacific Railway. In spite of the opposition encountered, the agreement was carried through the House, ultimately ratified by Act of Parliament, and received the Royal assent on February 16th, 1881. I can surely say, and the Dominion "Hansard" will bear me out, for it is a matter of history, that the successful carrying through of the measure relating to this important contract was due in a very large degree to the eloquence and powerful arguments of our Chairman this evening. Early in the spring of 1881 the Canadian Pacific Railway Company, under the presidency of the then Mr. George Stephen, began work, and in the autumn of 1885, that is in little over four years and a half from the date of commencement, the national highway of Canada was completed from ocean to ocean. Surely I am not wrong in saying that the successful accomplishment of this vast undertaking is one of the greatest, if not the greatest, feat of financial and engineering skill witnessed in this 19th century. Of its vast importance, from a colonial and an imperial point of view, I shall treat more in detail in the course of this paper.

It is very obvious that the most important consideration in connection with a railway is the region through which it passes, not only as to its nature and extent, but also as to its

capabilities and resources. I will, therefore, briefly lay before you a few facts relative to Canada, and will then review some of the chief difficulties which were met with and overcome in the construction of the railway. With this as a basis, I will endeavour to show the importance at the present time of Canada's national highway, and the immense influence it is likely to have in the future, not only on the welfare of the Dominion, but also in assisting to maintain and render indissoluble the integrity of the British empire.

The Dominion of Canada is divided into the seven provinces already mentioned, and in addition the North-West Territories are subdivided into the following territorial districts, namely, Keewatin, Assiniboia, Saskatchewan, Alberta, and Athabasca, and these, now that settlement is progressing so rapidly, must, before long, become provinces. Canada, as a whole, contains 3,470,392 square miles, and had, according to the census of 1881, a population of 4,324,810. In 1871, the population was 3,635,024, in ten years, therefore, the increase was 689,786. Some idea may be formed of the vast extent of the Dominion by comparing it with a few of the principal European countries. Great Britain and Ireland, France, Germany, Spain, Portugal, Austria, Russia, including Finland and Poland, Italy, Turkey, and Belgium in all contain 3,471,137 square miles, with a total population of 314,544,201. Canada, therefore, with its $4\frac{1}{2}$ million of people is as large as these ten European countries put together, with their population of over 300,000,000. And Canada's population continues to grow in a remarkable manner. Take for instance the population of the principal centres, namely, Montreal, Toronto, Quebec, Halifax, Hamilton, and Ottawa. These together show an increase of nearly 150,000 in the number of their citizens since 1871. The most remarkable case however is that of Winnipeg, which in 1871 did not contain over 500 inhabitants, while now it can boast of a population of between 25,000 and 30,000. The completion of the Canadian Pacific Railway and the consequent opening up of the great North-West, with its vast area of fertile land, will undoubtedly draw thousands of agriculturists from the over-crowded countries of Europe, and in this way the population of the Dominion is certain to be very materially increased within the next few years. That the North-West Territories are already filling up rapidly is evidenced on every hand. Take one instance only: the district of Assiniboia, which a year

or two ago had no population to speak of, is now reputed to contain over 100,000 inhabitants. In the more eastern portions of Canada, where there is not the same room for expansion as in the North-West, we find that just half a century ago the population of Ontario was 310,000, as against 2,000,000 to-day, and Toronto, the chief city of the province, which in 1871 had 56,000 inhabitants, has now nearly 120,000.

Among the various industries of Canada, consideration is naturally first attracted to that of agriculture. There are 700,000 agriculturists in Canada, and the product of their labours totals as follows, only some of the principal products being given:—149,461,399 bushels of different kinds of grain; 103,519,641 bushels of root crops; 105,730,165 lbs. of butter and cheese; 13,377,655 bushels of apples; 3,896,508 lbs. of grapes, grown in the open air; and 5,055,810 tons of hay. The last named does not, of course, include the thousands of tons of wild hay gathered from the prairies of the North-West. Of the immense area of the Dominion there are altogether 50,000,000 of acres unoccupied, some 22,000,000 improved, and over 15,000,000 under crop, while under pasture there are over 6,000,000 acres, not, of course, including the vast prairies of the North-West, stretching, with their abundance of nutritious wild grasses, for a distance of nearly 900 miles, from the Red River to the very foot of the Rocky Mountains. The value of this natural pasturage is highly appreciated by stock raisers, and indeed, at the eastern base of the Rocky Mountains there were, in 1884, 47 ranches, ranging in extent from 1,400 to 100,000 acres each, on which cattle had been placed. Throughout the whole Dominion the live stock is estimated to number over 900,000 horses, 200,000 colts and fillies, 2,000,000 horned cattle, 1,500,000 milch cows, 1,500,000 swine, and 3,000,000 sheep, yielding over 11,500,000 pounds of wool.

The export cattle trade has grown with perhaps more rapidity than any other branch of Canadian trade with Great Britain, and, with proper care on the part of agriculturists in the selection of suitable breeds of cattle, there is every reason for the belief that the present position of Canada in this regard will be fully maintained. The number of cattle exported in 1874 from Canada to Britain was 39,623, of the value of £195,472 13s. 10d. Each year showed a gradual increase up to the year 1880, when it had reached 54,944, valued at

£568,053 15s. 9d. The increase still continued, and for the season of 1885 the figures were 144,441 head, of the value of £1,557,594 12s. 1d. In horses the increase was from 5,399 in 1874, of the value of £117,238 18s. 10d., to 12,310 in 1885, of the value of £337,101 8s. 5d. In sheep the figures in 1874 were 252,081, of the value of £144,367 4s. 9d., and in 1884, 304,403, of the value of £317,395 1s. 9d.

This statement shows a wonderful increase in the cattle trade, and as the ranches of the North-West are developed, it will assuredly assume very large proportions, and is so destined to form one of the most important factors in supplying the people of Great Britain with meat. Some further idea of the rapid development of this industry in Canada may be gathered from the fact that, in Alberta alone, it is estimated, from last autumn's "round up," that there are at least 80,000 head of cattle in that district, where only a year or two ago there were comparatively few. In British Columbia, on the ranches west of the Rocky Mountains, it is computed that there are about 70,000 head of stock, and there is every likelihood that particular attention will be paid in that province to stock raising, especially as at present British Columbia expends about £200,000 annually in the importation of animals and their products. The Canadian Pacific Railway Company, fully alive to the importance of this trade, have provided stock-yards at Montreal occupying 25 acres of ground, in which there is a granary with a capacity of 400 tons of hay, grain, &c., extensive sheep and hog pens, and very capacious horse and cattle sidings. These stock-yards being close to the wharves, ocean vessels can easily load from them. The combined value of the exports of agricultural products, and animals and their produce, amounted to £7,262,695 18s. 11d. in 1884, or over one third of the whole export of the Dominion, thus clearly showing that agriculture and stock raising are the two principal industries of the Dominion.

The development of agriculture throughout the Dominion is one of the marked features of recent years, and especially is this so in the new districts of the Canadian North-West. There are now, in various North-Western districts, over one hundred flour mills, when ten years ago there were not half a dozen, the city and town mills alone having a capacity of about 3,000 barrels of flour daily. The surplus crop of wheat in Manitoba available for export in 1883-4 was 1,000,000 bushels against half that amount in 1882-3. The surplus for 1885

was over 3,000,000 bushels, though this does not include the vast wheat fields of Athabasca, Saskatchewan, and Alberta. The Canadian Pacific Railway has provided extensive accommodation for storing grain at Port Arthur on Lake Superior, and at Montreal an elevator has just been completed capable of holding 600,000 bushels, besides which there are numerous elevators erected at the various stations along the line. It is natural that the progress of agriculture in the north-west is more marked than in the older settled portions of Canada, but the progress all round is most satisfactory. In dairy farming, the Dominion has become already a formidable rival to the United States, especially in cheese exports, for up to the end of October of last year, the Canadian cargoes of cheese had exceeded those of the port of New York by several thousand boxes, and the total export of the Dominion in this line during 1884 amounted to £1,496,599, as against £1,259,184 in 1883. In eggs, Canada exported last year no less than 11,500,000 dozen, of the total value of £500,000; and in the simple article of honey, the country raised nearly 2,000,000 lbs. last season.

Time, however, would fail me to treat further with the agricultural resources of the country, and we will, therefore, now pass on to glance at the other industries of Canada. The aggregate value of the various industries of the Dominion, according to the last census, showed a total of £33,967,416 2s. 2d. capital invested, with an output of £63,634,173 18s. 6d., and employing 287,296 hands. These figures include the minor as well as the more important industries, but in order to show the great increase in the manufacturing interests of Canada during late years, I may say that a committee was appointed in 1884 by the Canadian Government to examine into the state of certain Dominion manufactures, and the gentlemen forming that committee reported on some 725 factories throughout the different provinces. These 725 factories represented a total capital of about £10,000,000 sterling, and an output of over £15,000,000, employing nearly 60,000 hands. The works examined included a variety of manufactories, and some idea of their increase may be gathered from the fact that in the same descriptions of factories as reported on by the committee there were only 258 works in 1878, as against 725 in 1884. And as another instance of the increase in the manufacturing industries, I may mention that in cotton manufacture there were in 1874

3,514,278 lbs. of the raw material imported for manufacturing purposes, as against 19,203,569 bs. in 1884, truly a remarkable increase. This increase in manufactures has naturally had a tendency to cheapen the price of goods, especially clothing. For instance, shirting, which cost 16½ cents. per yard in 1879, can now be bought for 11½ cents.; grey cottons are reduced from 9½ cents. to 7 cents.; woollen tweed from \$1 to 75 cents. A fine knitted shirt for which a farmer paid \$1 25 cents. in 1875, can now be purchased for 80 cents.; and an overcoat which cost \$10 in 1875, can be obtained at present for \$8, and so on, the average reduction in all kinds of clothing being from 25 to 30 per cent. Ontario is the largest manufacturing province, producing £32,446,252 3s. 2d., being over one half the total production of the Dominion. The manufactures of the Dominion are very varied, but I have neither the time nor space to enumerate them all; they include, however, cottons, woollens, machinery of all kinds, and manufactures of wood, iron, steel, brass, tobacco, sugar, and other articles.

Now, in this connection, it is most important to note that Canadian feeling is distinctly friendly to British as against foreign commerce. Statistics show unmistakeably that trade largely follows the flag. Of the total imports of Canada, in 1884, amounting to £22,229,634 17s. 1d., Great Britain furnished £8,921,805 1s. 8d., and the United States £10,375,561 9s. 2d.; but in the former case the imports consist almost entirely of manufactured articles, while in the latter they comprise chiefly raw material. Indeed, I may say that over three-fourths of the total imports of the Dominion in manufactured articles come from Great Britain, and on behalf of all the colonies I may further state that without the trade of these outlying portions of the British Empire the exports of the mother country would be reduced over one-third.*

The next important industry to be considered is that of the fisheries, which, in 1884, were valued at £3,645,203 12s. 1d., of which £1,765,466 15s. 1d. was exported.

In 1884, there were 1,473 vessels and 25,796 boats engaged in the different fisheries of the Dominion, with a total number of 58,822 men employed. The value of the fisheries in 1883

was £3,484,675 5s. 6d., and this, if the fisheries of Manitoba and North-West Territories were added, would show an increase of about £200,000 in favour of 1884. The salmon fisheries, especially those of British Columbia, are worthy of note, and their extent may be estimated by the fact that the total yield was valued last year at £279,105 3s. 10d. In one week alone of last season there were 12,000 cases shipped for London by the all sea route. British Columbia also excels in sturgeon, the largest captured last year weighing over 800 lbs., but they had previously been caught weighing as much as 1,400 lbs. The inland salmon fisheries of Quebec are also famous in the way of sport, and as an instance I may state that Lord Lansdowne, the Governor-General of Canada, with a small party of friends, captured last summer, during an expedition to the Cascapedia River district, no less than 400 salmon.

That Canada pays some attention to fish breeding, and, therefore, to the promotion of her fisheries, may be seen by the following list of young fish bred at the different hatcheries during 1884:—

White fish	30,500,000.
Pickrel	10,000,000.
Salmon	7,390,000.
Trout	5,300,000.

Another Canadian industry deserving notice is that of lumbering, the next in importance to that of agricultural and stock raising. The total export under the head of produce of the forest was, in 1884, £5,303,873 17s., and the annual out-put in timber and logs for the same year was 111,633,862 cubic feet of different kinds of timber, 48,350,091 pine and other descriptions of logs. The forest products of Canada constitute, indeed, one of her most important sources of wealth. They find their way to all parts of the world, to the United States, the United Kingdom, and even to the Australian colonies.

Coming now to the mineral resources of the Dominion, we find that the export of the produce of the mine in 1884 amounted to £667,232 15s. 1d. Commencing with coal, it has been ascertained that Nova Scotia possesses a coal area of nearly 700 square miles, or nearly twice the area of the Pennsylvania anthracite fields. Some of these Nova Scotian mines have a greater thickness of workable coal than probably exists anywhere in the world, and taking the province as a whole, it is estimated that there is within its boundaries three times as much coal for its area as in any other country

* The total exports of Great Britain for 1884 amounted to £295,998,000, while the imports of the colonies from the mother country, for the same time, came to £108,160,000, or nearly 10,000,000 over one-third of the total exports of the United Kingdom.

on the face of the globe. The coal deposits in Nova Scotia commenced to be developed in 1858, and they have since grown into great importance, especially so far as the coaling of vessels is concerned; but at Sydney and Cow Bay there are mines originally opened by the French about 200 years ago, and there is one mine which has been continuously worked for no less than a century. In Nova Scotia and New Brunswick the coal area comprise about 18,000 square miles, and in the North-West Territories, between the 49th and 50th parallels of latitude, the area is, so far as known, nearly 65,000 square miles. In the Rocky Mountain range, although the areas are small as measured in miles, they contain much coal of the best quality. The immense coal fields which are known to exist in different parts of the North-West must in themselves prove to be a great boon to the settlers, and set at rest any doubts that may have existed as to the supply of fuel in that portion of the Dominion. In British Columbia, coal mining is at present next in importance to that of gold, and, in the near future, it will probably prove to be more important. The deposits are very widely spread, both on the mainland and in the islands, the coal of Nanaimo, on Vancouver Island, being so far the best that has been found on the western coast of America. All authorities agree as to the extent and value of the coal beds of British Columbia. Mr. Selwyn, the head of the Geological Survey, mentions, besides the coal beds of Queen Charlotte's Islands—some of them anthracite, and the only anthracite coal yet discovered on the Pacific coast—the Nanaimo mines, a bed in the vicinity of Barclay Sound, on the west coast of Vancouver, and beds near New Westminster, and in the neighbourhood of the Nicola Valley, on the mainland, as well as several other places.

Thirty-two different places are named by Dr. Dawson, in a report on mines published in the Report of the Geological Survey, in which coal and lignites are known to occur, and some of these are extensive districts. I should like, had time and space permitted, to have included in this paper a few of the numerous tests which have been made of Canadian coal, but may say that they have been generally of a most satisfactory character. The importance—from an Imperial point of view—of the Canadian coaling stations on the Atlantic and Pacific is fully recognised by the Imperial naval authorities. As to other minerals, gold mines are being worked in

Nova Scotia, Quebec, Ontario, the North-West Territories, and British Columbia. It is now well known that certain parts of the Rocky Mountains are exceedingly rich in gold. Captain Palliser, who has recently been making investigations in the mountain districts, points out that, while before the Canadian Pacific Railway was built, such were the difficulties of transport, and of obtaining provisions and supplies, that the rich gold veins in the mountains could not be worked. Now that these obstacles are overcome, the miners are rapidly returning to the Great Bend of the Columbia River. Over 40 veins of gold-bearing quartz have already been registered, all of them situated within a radius of three miles. Along the line of the Canadian Pacific, especially on the north and north-western shores of Lake Superior, silver mining is carried on extensively. Near Port Arthur—Canada's western lake port—there are no less than six mines in operation—namely, the Huronian, Silver Mountain, Rabbit Mountain, Beaver, Silver Creek, and Turin City, while Silver Islet is declared to be the richest yet discovered on the continent. In the maritime provinces silver mining is also carried on, and in the Rocky Mountains, as well as British Columbia, rich discoveries have lately been made. Some of the Canadian iron ores are considered among the most valuable in the world, and along the shores of Lake Superior copper abounds in large quantities. Then on the line of the Canadian Pacific Railway, between Montreal and Ottawa, large deposits of phosphates are being developed. Last year alone over 25,000 tons were shipped from the district, and it is worthy of note, that in those portions of Europe where the sugar beet is extensively cultivated—that is, in France, Belgium, and Denmark—no fertiliser has been found to equal the mineral phosphate of Canada. This phosphate trade has therefore every scope for speedy and large expansion, especially as Great Britain and the United States have commenced to use the mineral extensively. The petroleum wells of Canada are famous for their wealth in oil, having in 1884 produced 15,490,622 gallons. "The Golden Butterfly," by Besant and Rice, is, indeed, no overdrawn picture of the fortunes that have been realised with oil in Canada.

The growing of fruit, as well for home consumption as for exportation, is now becoming an important industry in Canada. There are vineyards of fifty or sixty acres in extent, peach orchards of similar size; and

apple orchards almost innumerable. Strawberries are raised as a field crop. Plums, pears, gooseberries, currants, and raspberries, are everywhere produced in the greatest abundance. The tomato ripens in the open air, and such is the profusion of this fruit that it is very often cheaper on the market than potatoes, selling at 2s., and some times less, per bushel. Melons ripen in the open air, as a field or market garden crop, and this delicious fruit is sold at very cheap prices in the markets. In the North-West wild fruits grow in great abundance, and include plums, grapes, strawberries, raspberries, cherries, cranberries, and other luscious berries of various kinds.

The time at my disposal prevents my giving further details regarding the resources of Canada, although it must not be supposed that I have enumerated one half the wealth of that grand Dominion of ours across the water.

The total exports of Canada in 1884 amounted to £18,782,778 1s. 7d., one half of which Great Britain received in natural products. The imports for the same period amounted to £22,229,634 17s. 1d., and of this £9,000,000 came from Great Britain in the shape of manufactured goods. Thus the exports to the United Kingdom are about evenly balanced by the imports. Canada is at the present time energetically endeavouring to extend her foreign trade relations, and negotiations, in which our worthy chairman has taken a deep and active interest, have been going on to that end with France, Spain, the West Indies, and other parts of the world. In shipbuilding, and the shipping trade, there were built in Canada during 1884, 53 steamers and 305 sailing vessels, with a tonnage of 70,287, and on the register of the Dominion there were then in all 7,254 vessels, with a nett tonnage of 1,253,747 tons. It is admitted indeed that Canada stands fifth among the maritime countries of the world. The Dominion railway system is exceeded in length by that of only five European countries, Germany, France, Great Britain, Russia, and Austria, and it is a question whether the mileage of Canada does not surpass even that of Austria. The Canadian railway system in 1884 comprised 9,949 miles of road, with 1,565 under construction (most of which have since been completed), and the capital invested amounted to £114,582,229 9s. 4d. The canal system proper of the Dominion, which is probably one of the finest in the world, comprises some 219 miles, and cost £9,605,638 5s. 9d. The trade passing through these Canadian canals reaches

large dimensions. There were in all 21,722 vessels passed through the different canals in 1884, with a tonnage of 3,393,928 tons.

As to the Canadian people no better evidence exists of the prosperous condition of the working classes in a country than the state of the savings' banks, and Canada shows well in this respect, for, at the close of 1884, the sum of £2,721,778 18s. 8d. remained at the credit of depositors in the various institutions, while in 1868, the credits only amounted to £42,040 3s. 11d. So much for the wealth and resources of Canada, and to prove that her sons are able and ready to defend it should they be called upon to do so, I may mention that the enrolled active militia of the Dominion numbers 45,000 men, while the reserve is 655,000. If, however, it were necessary to defend their country against the invader, double that number would, I am sure, be forthcoming to volunteer for active service.

Of the aborigines, or, as they are sometimes called, the Red Men of Canada, there are now remaining only 131,952 throughout the whole of the Dominion, and of this number 33,959 belong to the tribes of the North-West Territories. A large proportion of the Indians in the eastern provinces are more or less civilised. Those in the North-West are so scattered, and, moreover, bound by such just and fair treaties, their part of which the Dominion Government endeavour faithfully to carry out, that any outbreak or trouble is, in my judgment, next to impossible. The attempt to incite the more important tribes to rebellion during the late rising of the half-breeds in the North-West signally failed, and no greater proof than this of their loyalty is needed. The cost to the Dominion for the maintenance and care of these Indians, and the payment of subsidies under the treaties amounted, during 1884, to £229,354 3s. 3d. These efforts by the Canadian Government to improve the condition of the Indians are not, moreover, fruitless. In 1884, on the Indian reserves, 84,586 acres were under cultivation, producing crops of corn, wheat, oats, peas, barley, rye, buckwheat, and potatoes. The fish industries of the tribes during the same period reached a value of £204,331, the fur catch £68,310, and various other industries £26,969. On the same reserves there were established, last year, 149 schools, with an attendance of 4,306 pupils, and the course of instruction included reading, spelling, writing, arithmetic, grammar, geography, history, music, singing, and drawing.

A great deal has been written about the climate of Canada. Until very recently it was looked upon as the Siberia of the British Empire. Recent investigations as to its climatic relations to European countries show that Canada has the latitudes of Italy, France, Germany, Austria, the British Islands, Russia, Sweden, and Norway; and has as many varieties of climates as have those countries. The most southern part of Canada is on the same parallel as Rome in Italy, Corsica in the Mediterranean, and the northern part of Spain—farther south than France, Lombardy, Venice, or Genoa. The northern shores of Lake Huron are in the latitude of Central France, and vast territories not yet surveyed, are favourable for all the great staples of the temperate zones. I have seen it stated in the British press that Canada, especially the North-West, experiences eight months of winter and four months of summer, while in reality the spring, summer, and autumn months are April, May, June, July, August, September, October, and part of November (frequently the greater part), and the winter months are December, January, February, and March. Fact in this case thus completely reverses fiction. The climate of the North-West is of course sometimes severe during midwinter, but as experiences of residents undoubtedly show, that so dry is the atmosphere the cold is not as much felt as the readings of the thermometer would seem to threaten.

Coming now to speak briefly of the physical features and beauties of Canada. A country so vast in extent can hardly fail to present a great variety of surface, as well as every description of climate, soil, and produce. Mountain and woodland characterise to a large extent the eastern and western portions of Canada, while the central is principally level prairie. The area covered by the inland waters of the Dominion embraces 700,000 square miles, and constitutes probably the largest lake and river system in the world. Among the lakes bordering on Canada may be mentioned Ontario, Huron, Michigan, Erie, and Superior; and among those in the interior, Winnipeg, Manitoba, Great Slave, Great Bear, Athabasca, Lake of the Woods, and other minor bodies of fresh water. Among the principal rivers, the Great Saskatchewan, Mackenzie, Columbia, Fraser, and St. Lawrence, may be enumerated, and so vast are these inland waters that a vessel loading at Port Arthur, the head of Lake Superior, may pass through the various lakes, canals, and

rivers to the Atlantic, a distance of about 2,384 miles, and from thence continue her voyage across the ocean.

To the tourist and sportsman Canada presents many features of interest, at which, however, I regret to say, we can only cast a passing glance. Landing at Halifax, which is an imperial station, where is kept the only garrison of British troops in Canada, a day or two can be well spent in visiting the fortifications, dockyards, and other points of interest in and around the city. The harbour of Halifax is one of the best, perhaps the very best, in the world. It is six miles long, by, on an average, a mile wide, and capable of floating alongside the wharves vessels of the largest size. There is excellent anchorage in every part of it, with room for all the navies of the world. The city and harbour of Halifax are protected by eleven different fortifications. The province of Nova Scotia, of which Halifax is the capital, is renowned for its beautiful lakes and streams, and there is excellent hunting, shooting, and fishing in almost every county. Trout abounds in nearly every stream; moose, deer, hares, and foxes, afford good sport at certain seasons, and in shooting, woodcock, snipe, plover, and duck are plentiful. The scenery in the Annapolis Valley and many other parts are well worthy of a visit. Taking the intercolonial railway, one passes from Nova Scotia through the province of New Brunswick, also famed for its fishing and for its game, of the latter the cariboo being especially plentiful. St. John, its principal city, is a great seaport, and has not inaptly been called the Liverpool of British America. Indeed the sea coast of New Brunswick is everywhere indented with commodious bays, harbours, and inlets. Its bays are well renowned for the value of their shore fisheries. Passing on we enter the province of Quebec, and soon reach the ancient city of the same name, now the present eastern terminus of the Canadian Pacific Railway. Quebec is probably the most interesting city in Canada, from a historic and scenic point of view, and well repays a visit. In the neighbourhood the Falls of Montmorenci are eight miles distant, and nine miles below the city the Chaudiere Falls. We now come to Montreal, the commercial capital of Canada, and probably the most beautiful city in the Dominion. Here is to be seen the Victoria tubular bridge, two miles in length, the work of Robert Stephenson, the great English engineer. Above are the Lachine rapids,

with their wealth of wild scenery, and one of the chief attractions to excursionists visiting Montreal is to shoot these rapids in one of the river steamers, a feat which certainly possesses some considerable degree of excitement for those participating in it. Above the Lachine rapids the Canadian Pacific Railway Company are constructing a bridge to span the St. Lawrence, in order to afford the railway independent access to a seaboard connection. The bridge, which is to be of iron, substantially built on stone piers, will be 3,550 feet in length, and will cost over a million dollars. Montreal is beautifully situated on an incline, Mount Royal being in the background; and so far as its splendid wharves and piers are concerned, is in reality, as St. John hopes one day to be, the veritable Liverpool of the Dominion. It possesses many handsome public buildings, and the great Cathedral of Notre Dame is specially worthy of a visit.

We may now take the Canadian Pacific Railway to Ottawa, the seat of the federal Government in Canada, and the great timber and lumber centre of the Dominion. The Parliament buildings, consisting of three of the finest edifices on the continent of America, constitute the chief attraction of the city. The surrounding country is most picturesque, possessing many features of interest to the tourist. The water power of the Chaudiere falls at Ottawa is probably the greatest and most valuable in America. From Montreal by the Ontario and Quebec section of the Canadian Pacific Railway you reach Toronto, the chief city of Ontario. Thence a pleasant sail across the Lake Ontario brings the tourists to Niagara Falls, the splendours of which are of world-wide reputation. Toronto is built on a level plateau on the shore of Lake Ontario, and is noted for the width and beauty of its streets, and its many handsome public and private buildings. The province of Ontario, as a whole, is essentially devoted to agriculture, though, as I have already shown, its natural facilities for manufacture have been largely utilised. Yet the tourist and sportsman will find many parts worthy of front rank in his estimation, of these may be mentioned the districts of Parry Sound, Muskoka, and Nipissing, where both game and fish are plentiful.

Returning to Ottawa, we proceed by the Canadian Pacific Railway along the north of Lake Superior through a country abounding in fine scenery, and rich in minerals and timber, until we reach Winnipeg, the doorway as it were to the prairies of the North-West. The

growth of Winnipeg has been, as I have already shown, wonderful, and from its position it is certainly destined to become a large and important city. The Canadian Pacific Railway runs from this point for a distance of nearly 900 miles across the great prairies of the North-West to Calgary at the base of the Rocky Mountains, a great plain of fertile land destined to become, ere long, the home of thousands, aye millions, of prosperous and contented settlers. On leaving Calgary, the railway proceeds for three miles through the broad flat valley of the Bow River, and comes suddenly to the foot of a very high hill on the left, with the surging waters of the river immediately below on the right. The bridge over the Bow River consists of two spans, resting on four abutments, and measures 428 feet. Twenty miles from Calgary we pass the buildings of the extensive Cochrane Ranch, and five miles beyond we cross the Bow River for the third time by a bridge over 420 feet in length, 3,666 feet above sea level. Fifty-three miles west of Calgary, and the river is again crossed by a bridge of 470 feet, at an elevation above the sea of 4,160 feet. Farther west, the track crosses Kananaskis River, a turbulent stream tributary to the Bow River, running through a deep dark channel of slate rock, and leaping from height to height as it descends the mountain side. At Padmore, where the valley is contracted to half a mile, we make entry to the portals of the mountains. To the north the slopes are bare, to the south they are wooded. At the entry the rocks rise three to five thousand feet, showing the whole formation, and rendering the search for minerals, coal, iron, copper, and silver, comparatively easy. Four miles west of Padmore we are completely in the mountains. Every turn reveals new views of the grandest mountain scenery. Peaks tower behind and above, and now a pyramid, again a pinnacle, here an awful precipice, and there a pine-covered slope. For fifteen miles such grandeur of scenery prevails until we reach the Big Park, or Aylmer Park as some call it. Proceeding from the head of the park for eight miles, we see towering 5,800 feet above the track, Mount Cascade, named from the stream which issues from its side, and with one leap descends 2,000 feet, to the valley below, its volume becoming spray in the fall. Near Banff, seven miles westward, two sulphur springs have been discovered at a short distance from the station, on the main line. The temperature of the water in one of the springs is 73°, and in the other 200°. The

latter one, on the mountain side, is 200 feet above the level of the valley. It is thought that these will equal the hot springs of Arkansas.

Westward still for eight miles, and we come to Castle Mountain, named from its resemblance to Cyclopean masonry. Leaving Laggan, we pass under the shadow of the mountain, and cross wild mountain streams, and shortly stop at Stephen, named after the President of the Canadian Pacific Railway, to whom the successful prosecution of the enterprise is so largely due. This is the highest elevation on the railway, the road being 5,300 feet above the sea. Westward from Stephen the track passes several summit lakes, from one of which several streams flow on one side to the Atlantic, and on the other to the nearer waters of the Pacific. Five miles beyond is Kicking Horse Lake, whence the Kicking Horse River empties into Columbia River. The track proceeds down the Kicking Horse Valley amid scenery more magnificent even than before, to the north bank of the Beaver River, and spans the Columbia River, thence crossing the Selkirk Range by Roger's Pass, named after its discoverer, Major Rogers, an approximate distance from Stephen of 100 miles. The railway now continues for 40 miles through a valley to the second crossing of Columbia River. The line then passes through the Eagle Pass, and on through the valley of the Thompson River to Kamloops, continuing through the valley, and coasting Kamloops Lake, the track reaches Savona Ferry. Still keeping to the basin of the Thompson, and following the gorge through which the river forces its way, the railway leaves the westerly direction it has hitherto pursued, and bends down to the south. Crossing the Nicola River, we reach Lytton, near where the Thompson River enters the parent waters of the Fraser. Crossing the Fraser, the line proceeds on the western bank past Yale to Hope, where a westerly course is again resumed to Vancouver, the Pacific terminus of the Canadian Pacific Railway, completing a distance of 2,000 miles from Montreal across the Continent to the Pacific. The selection of Coal Harbour as the Pacific terminus of the railway, seems to give general satisfaction in the interests of the province and of the whole Dominion. The new port has a well-protected anchorage, while its position at a point five miles only from the mouth of the inlet is most favourable. Another important advantage over Port Moody, the

terminus previously fixed upon, is that only the first narrows have to be passed, whereas, in the case of Port Moody, the second narrows, where the channel varies from 72 to 126 feet in depth, and the tide runs from three to seven knots an hour, have also to be passed.

To British Columbia time allows us to give but a passing glance. The province is undoubtedly attracting much attention at the present time in this country, now that the long looked for through railway communication over the mountain is opened up with other parts of Canada. British Columbia has not only a delightful climate, but also in many parts a rich and fertile soil. It possesses great mineral wealth and is rich in timber. The scenery on the British Columbia side of the mountains cannot be excelled, and undoubtedly it will be in the future a favourite resort for tourists and sportsmen. Its salmon fisheries, both inland and on the coast, are well known to be most valuable, and in addition trout and other kinds of fish are plentiful in the streams. Of large game there is bear, cariboo, elk, and deer, and of the smaller game wild geese, grouse, snipe, and other kinds. British Columbia is the largest, although at present the least settled, of the seven confederated provinces; now that it is linked to the rest of the Dominion, no one can say how soon it may not enter upon such a course of prosperity as to make it one of the leading provinces of Canada. There are already several indications that, as soon as the railway is open for traffic to the City of Vancouver, there will be a very considerable flow of emigration to British Columbia, so that we may expect to see within a very short time a rapid development of its numerous resources.

Having given you a very imperfect description of the resources and capabilities of the Dominion, and taken a rapid glance at the country through which passes Canada's national highway, I will now endeavour to give a short review of the difficulties encountered and overcome in the construction of the railway. During the interval between 1872 and 1878, an attempt was made to locate the line to the north of its present course. An effort was also made to utilise some of the water stretches along the route, instead of making it a continuous all-rail line across the continent. Fresh surveys were made, expensive locks were constructed, and time and money expended, only to find in the end that the part-water part-rail scheme was, for all practical purposes, a failure. I have already shown that,

soon after the accession of Sir John A. Macdonald to power in 1878, a different policy was entered upon, and a contract finally effected with the gentleman now president of the road, Sir George Stephen, and his colleagues, to construct the line. The more southern route was then adopted, and work commenced in earnest, so that at the close of 1881, 165 miles were constructed westward from Winnipeg. In 1882, the company completed a further distance of 419 miles, and in December, 1883, the railway was finished to Calgary, a distance of 839 miles from Winnipeg. In the following May, 1884, it was finished to Stephen, the summit of the Rockies, being altogether a total of 961 miles, constructed in three years' time. The Government had undertaken, by the terms of their agreement with the company, to transfer, when finished, the railway already under construction and that already built, in all some 710 miles; and while the road westward from Winnipeg was being built, the line eastward to Port Arthur was completed in May, 1883, and handed over to the company to operate. The railway was therefore open from Port Arthur, on Lake Superior, to Stephen, the summit of the Rockies, in the month of May, 1884. It must not be supposed that because the work of construction was quickly done it was therefore poorly done. On the contrary, the entire line is thoroughly well built, with the very best of materials, and to show that it was well graded, I may state that the earthwork from Winnipeg to the Rockies averaged 16,300 cubic yards to the mile. The maximum gradients to the eastern base of the Rockies, with one exception, that of the crossing at the Saskatchewan River, are 40 feet to the mile, while steel rails of English and German make are used throughout the entire line. The year 1884 was principally occupied with the construction of the railway north of Lake Superior. On this section of the road, which was one of the most difficult the company had to deal with, there were from 10,000 to 12,000 men employed, and from 1,500 to 2,000 teams of horses. Twelve steamers of different sizes were employed to bring supplies to this army of labourers. The Lake Superior section was completed early in 1885, and opened for traffic in the autumn of the same year. On the 2nd of November, 1885, the first through train to the Rocky Mountains left the city of Montreal, and on the 7th of the same month, in the same year, the last spike to complete the line from the Atlantic to the Pacific was driven

by the Hon. Donald A. Smith, who has been throughout one of the warmest and strongest supporters of the great enterprise. One has only to travel over the line through the Rockies to comprehend the immense physical difficulties that have been overcome in the construction of the railway. None but those who have seen them can realise their extent and immensity. More than 300 miles have been cut through solid rock; the mountains have been pierced by scores of tunnels; innumerable rivers of various sizes have been crossed, some by iron bridges over a thousand feet in length; one wooden bridge of most solid construction, 286 feet above the water, the highest in America; and no less than fourteen streams have been diverted from their natural beds by tunneling through the solid rock. The successful carrying on of this great enterprise, so far as its physical features are concerned, is quite unparalleled in railway construction. It is in magnitude and difficulty of execution one of the greatest, if not the greatest, achievement of human labour that the world has ever seen. Sir George Stephen and his colleagues, Mr. W. C. Van Horne—who was chiefly responsible for the direction, organisation, and carrying out of the work, and who promised to complete his huge task in five years, and finished it in four and a half—Sir John Macdonald, Sir Charles Tupper, our distinguished chairman, and others who have been more or less identified with the enterprise, may justly congratulate themselves on the successful issue of their labours. The memory of the men who have thus secured for Canada what I may term the certainty of future greatness and prosperity, will never fade for generations to come. I look upon the completion of the Canadian Pacific Railway as the welding of the last link in the chain of confederation in British North America. Without that link the elements of disunion would, I fear, have developed. This is especially so far as the North-West Territories and British Columbia are concerned, for without railway connection between the eastern and western portions of the Dominion, the latter would still occupy an isolated position, such as could not last long without danger of a disruption of the union. The Canadian Pacific Railway not only strengthens confederation, but will be the means of developing in a large degree the resources of the Dominion, and with that development the railway itself must become more and more important, and can hardly fail to attain a success beyond even the expectations of its warmest friends. By its means the

great prairies will be peopled, and British Columbia brought into touch with the markets of Eastern Canada, and thus the manufacturing industries of Ontario and Quebec will have room to develop and expand. Moreover, it is well known that the trade between the United States and Australasia, *via* California, is rapidly growing, and the class of goods supplied by our American friends to these British Colonies can be as well, if not better, supplied from Canada. Thus through the opening of the Canadian Pacific Railway a new and important outlet for Canadian goods will be secured, which must otherwise have been unattainable. The completion of the road binds together all the provinces of British North America, politically and commercially, and opens up to the surplus population of the United Kingdom the most productive wheat lands in the world. It will tend, more than any other work ever can do, to make "Greater Britain" a reality, and to consolidate in more ways than have hitherto been suspected the unity of the Empire. Viewed also merely as the opener-up of new routes, the Canadian Pacific Railway will effect for the Empire one of the most marvellous changes on record, realising to some extent the old 16th-century idea, that the shortest route to the East is by the West.

A well-known authority on International Law, writing on the complications which may arise in connection with the Suez Canal, says:—

"England's position with regard to the Egyptian question has been greatly altered by the opening of the Canadian Pacific Railway. A free passage through the canal for our transports is by no means so essential to the defence of the Empire as it was a short time ago. We have, therefore, far greater liberty of action in dealing with the other Powers than we had before. Now that we have an alternative route to India, we may be able to purchase other advantages in the settlement of Egyptian affairs by giving our consent to an arrangement concerning the canal which prudence would formerly have compelled us to decline."

How the Canadian Pacific Railway exercises "an immediate influence upon the Eastern problem," Mr. Lawrence works out as follows:—

"Halifax is an Imperial station, where is kept up the only garrison of British troops in the Dominion of Canada. On the receipt of a telegraphic order from the Home Government, the 2,000 or 1,500 soldiers stationed there could immediately proceed by railway across the continent. They would reach the Pacific—at the new city of Vancouver, on Burrard

Inlet—in five days; and meanwhile their places at Halifax could be supplied by Canadian militia till a new garrison arrived from England. They could be conveyed from Vancouver by sea to Calcutta in 33 or 34 days, stopping on the way at Hong Kong and Singapore to pick up reinforcements from the Imperial garrisons stationed there. Thus a force of from 3,000 to 4,000 men could be thrown into India in about 38 or 39 days from the time when the order to start reached the officer in command in Halifax. Now it takes just 38 days to make the voyage from England to Calcutta, *via* Gibraltar and the Suez Canal. Thus we see that, as regards time, the two routes are in very much the same position; whereas the route by the Canadian railways has this great advantage—that the land portion of it passes entirely through British territory. As long as we keep command of the sea, it is perfectly safe from end to end. The canal may at any time be blocked by accident or design, but it is impossible to throw a barrier across the open ocean."

A writer of a recent article in a London paper says:—

"The golden age of peace has not yet dawned. Hence when our Pacific squadron can with despatch and certainty draw men and supplies from Halifax or England, and when regular lines of English steamers ply between Vancouver and the East, the power and influence of Great Britain in the North Pacific will be enormously increased, whether it is to be exercised against aggressive Russia, or to maintain her friendly ascendancy in Japan or China, or to hold her own in India."

APPENDIX A.

TOTAL MILEAGE OF C.P.R. LINES IN 1886.

	Miles.
Main lines	3,047
Branch lines.....	343
Leased lines	695
	4,285

BY THE WEST TO THE EAST.—COMPARISON OF TIMES.

London to Yokohama.

P. and O. <i>via</i> Brindisi	43 to 46 days.
P. and O. <i>via</i> Gibraltar	52 to 55 "
C.P.R. <i>via</i> Vancouver	24 to 26 "

London to Hongkong.

P. and O. <i>via</i> Brindisi	34 to 37 days.
P. and O. <i>via</i> Gibraltar.....	43 to 46 "
C.P.R. <i>via</i> Vancouver	30 to 32 "

London to Shanghai.

P. and O. <i>via</i> Brindisi	39 to 42 days.
P. and O. <i>via</i> Gibraltar.....	48 to 51 "
C.P.R. <i>via</i> Vancouver	29 to 30 "

London to Adelaide.

P. and O. <i>via</i> Brindisi	38 days.
P. and O. <i>via</i> Gibraltar	47 "
<i>Via</i> New York and San Francisco ..	45 "
C.P.R. and Vancouver	35 "

London to Melbourne.

P. and O. <i>via</i> Brindisi	39 days.
P. and O. <i>via</i> Gibraltar	48 "
<i>Via</i> New York and San Francisco ..	44 "
C.P.R. and Vancouver	34 "

London to Sydney.

P. and O. <i>via</i> Brindisi	40 days.
P. and O. <i>via</i> Gibraltar	49 "
<i>Via</i> New York and San Francisco ..	42 "
C.P.R. and Vancouver	33 to 35 "

London to Hobart Town.

P. and O. <i>via</i> Brindisi	41 "
P. and O. <i>via</i> Gibraltar	50 "
<i>Via</i> New York and San Francisco ..	46 "
C.P.R. and Vancouver	36 "

London to Auckland.

P. and O. <i>via</i> Brindisi	45 "
P. and O. <i>via</i> Gibraltar	54 "
<i>Via</i> New York and San Francisco ..	37 "
C.P.R. and Vancouver	31 "

COMPARISON OF DISTANCES VIA NEW YORK AND
SAN FRANCISCO, AND VIA CANADIAN PACIFIC
ROUTES.

	Miles.
From London to Adelaide <i>via</i> Quebec and C.P.R.	14,444
From London to Adelaide <i>via</i> New York and San Francisco	14,882
From London to Melbourne <i>via</i> C.P.R. ..	13,959
From London to Melbourne <i>via</i> New York and San Francisco	14,397
From London to Sydney <i>via</i> C.P.R.	13,399
From London to Sydney <i>via</i> New York and San Francisco	13,837
From London to Auckland <i>via</i> C.P.R. ..	12,899
From London to Auckland <i>via</i> New York and San Francisco	12,687
From London to Vancouver City <i>via</i> Quebec and C.P.R.	6,073
From London to San Francisco <i>via</i> shortest connecting lines in United States	6,510
From London to Yokohama <i>via</i> C.P.R. ..	10,299
From London to Yokohama <i>via</i> New York and San Francisco	11,277

[The paper was illustrated by a series of lantern views thrown on the screen by means of the electric light.]

DISCUSSION.

Dr. EDMUNDS proposed a vote of thanks to Mr Begg for his interesting paper. He (Dr. Edmunds) had had the privilege of going with the British Association, two years ago, to Canada, and had seen all the places which had been represented upon the screen. Interesting as these views had been, they hardly gave a full idea of the beauty and grandeur of the places represented, those in the Rocky Mountains particularly, which surpassed anything which could be conveyed by a photograph. The interest which

Englishmen had in these new colonies was very great; we were increasing at the rate of nearly 7,000 a week, and it was thought by many who were very competent to judge that England, as the workshop of the world, was meeting with very formidable rivals, and that provision for our rapidly increasing population will day by day become a more pressing question. If that were so, there could be little doubt that these new territories were most valuable possessions. He confessed that, when he travelled over those wonderful prairies and saw the farms of the prosperous settlers there, and realised that half a mile square of virgin fertile land was given to every adult emigrant who settled on those North-Western plains, he wondered how it was that our agricultural labourers could be induced to remain at their profitless toil in England, and still adhere like limpets or mussels to the rocks on which they had grown. Those who were able to bear testimony on this question ought to call the attention of our crowded population to the glorious country there was, where everything could be had in such profusion, and where no man intending to work could fail to do well. He was so much interested by what he saw on his first visit, that last year he made a further exploration of Canada, going through some of the more northern districts. It would take twelve or eighteen months to get anything like a survey of the country, but last year he went over the Lake Winnipeg district up towards Hudson's Bay. He also travelled a second time over the great North-Western prairies, and through the Rocky Mountains, a most charming tour. As to the winter cold, Mr. Begg was quite right in his remarks; the thermometric temperature was very apt to mislead one as to the sensation of cold on the human frame. A young friend of his who had just returned from visiting the shores of Hudson's Bay, during the severest portion of last winter, told him that coming across Lake Winnipeg, they had the temperature 49° below zero, but he did not feel the cold so much as he had done in England during the last six weeks; and that when it got up to 20° below zero it seemed quite mild. It was the great dryness of the atmosphere which produced this effect. The effects of cold upon the human body was a question of the conductivity of the air, and of the rate at which the body parted with its heat. Now the extreme dryness of the air in Canada made its winter cold quite bearable. When there was a wind, a man could hardly stand it, but when there was no wind, and you were properly clothed, nothing was so exhilarating as the sleigh rides over the ice and snow which you got in Canada during certain months of the year. Mr. Begg had lived in the country more than twenty years, and had travelled all over it; he had been engaged in the fur trade, and his account could be thoroughly depended upon. He could say, from his own observation, and from what he had heard from friends, that with regard to health, and the

enjoyment of life, and the success which would attend any ordinary man who went to Canada with the intention of working like a man, living frugally at first, and leading a thrifty, self-denying life, it offered a future which could not be paralleled in this country.

Mr. DAVID CHADWICK seconded the motion. He remarked on the moderate and fair manner in which Mr. Begg had treated his subject. Speaking especially of Canada's new great highway, he had been compelled naturally to omit many points of interest, but all he had said was absolutely true, and he had exaggerated nothing, but had stated the facts as briefly and fairly as possible. From his own observations on five visits to Canada, he would endeavour to say a word or two on other points which had not been referred to. On his first visit to Canada, twenty years ago, he explored the Grand Trunk Railway, which was Canada's first great highway, and, on his second visit, what was then considered to be Canada's second great highway, the Intercolonial Canadian Railway. The next time he went was for other purposes than that of railway inspection; but on his last visit he went specially to see the North-West and this Canadian Pacific Railway. It was, as Mr. Begg had described it, one of the greatest engineering works of the time; and nothing was more true than the fact that the Canadian Government (especially the present Government, which had recently at its head as Railway Minister the eminent man now in the chair) was entitled to the highest credit for carrying out this great work. Sir Charles Tupper's elaborate reports on the railways of Canada, and the mass of facts he adduced in his great speeches, demonstrated not only the practicability of the Canadian Pacific line, but that it could be made by mercantile men much better than under Government superintendence, and that it could be made to pay. No achievement could confer greater honour on Sir Charles Tupper than that which he accomplished as Railway Minister in the Government to which he was attached, and which had been so successful in every respect. When he was in Winnipeg last year, he was reminded of the fact that more than twenty years ago he had been called in as a professional accountant to report on certain matters between the old Hudson's Bay Company and the new one. Fort Garry, the site of the present city of Winnipeg, was a station of the Hudson's Bay Company. He recollected that on that occasion reports were made that in the Winnipeg valley, and the Red River settlement, fertile land could be obtained. For two or three hundred years it must have been known that the land was fertile, but it was absolutely sealed up for want of roads. But there was another railway about to be constructed which railway would open up quite a new world. The Winnipeg and Hudson's Bay was a line 600 miles long, and would give direct communication with Liverpool. It had been proved by two explorations for the Dominion Government that Hudson's Bay and Hudson's Straits were open

to ordinary shipping for 4½ months in each year. This railway shortened the distance by upwards of 900 miles between Europe and the fertile plains, 200,000,000 acres in extent, of Manitoba and the North-West Territories. This new territory would afford accommodation for every human being who required a comfortable home and was willing to labour. The Hudson's Bay Railway, and the Canadian Pacific Railway would shorten the distance from Europe to British Columbia, China, and Japan, and so form a highway either for commerce, for war, or for postal communication. Mr. Hugh Sutherland, the chairman of the Winnipeg and Hudson's Bay Railway, had arrived in London that very night from Canada, but he was too much fatigued with his journey to come to the meeting. Mr. Shelford, the engineer, was present, and he would be able to substantiate his statement. The completion of this railway would be a blessing to both England and Canada.

The CHAIRMAN, in putting the motion, said he long had the pleasure of knowing Mr. Begg as one of the most indefatigable and able *employés* of the Canadian and Pacific Railway, a gentleman who, from his personal knowledge of the great Canadian North-West, with which he had long been familiar, and his thorough knowledge of every step taken by the company in the construction of this great work, would, he knew, be prepared to give a very able and interesting paper, and he could, from personal knowledge, corroborate in the fullest manner all the facts and interesting data he had given. There were none of the striking scenes which had been presented with which he was not perfectly familiar, and he only wished the audience, instead of seeing the somewhat imperfect delineations, could have seen the places themselves in their natural condition. There were one or two points, however, in the paper on which he wished to offer a slight criticism. He feared that Mr. Begg had given too much credit to himself, and to the leaders of the present Government of Canada, and had perhaps scarcely given due credit to their opponents. He said how little the Government of Mr. Mackenzie succeeded in doing, as might be gathered from the fact that at the end of over six years the actual completion of the line was about as far off as when the project was at first conceived. Now, that somewhat sweeping statement must be a little qualified in order to do justice to his political opponents. He regretted to say that they did not take the very sanguine view that he and his friends did with regard to the practicability of Canada, with a population of less than five millions, being able to undertake one of the most gigantic works of the present age, but he remembered with great gratification that when about the close of 1872 his party fell, and the opposite party succeeded to power, they declared their intention of steadily prosecuting the construction of the railway, and although no great progress was made perhaps during the five years that they were

in office, it must not be forgotten that they placed under contract 228 miles of the most important and difficult section of the work, one running 112 miles east from the Red River, and another 114 running west from Port Arthur towards the Red River, the accomplishment of which greatly facilitated their efforts when they succeeded to power. During that five years also they continued vigorously to explore and survey the country, and the route by the valley of the Fraser, which was subsequently adopted, was practically located by his opponents during their term of office. Mr. Begg had stated that on their return to power, in 1878, they at once attempted to carry out the construction of the railway by a company, but that was not strictly in accordance with the fact. When they came back to power they felt that the project of constructing the railway by a company, and of obtaining capital for its construction, was in that position that it would not be wise to adopt that course immediately, and for a time they carried out the policy of their predecessors, and went on with it as a Government work. They placed under contract that very difficult portion between the two sections which their predecessors had contracted for, by which the communication would be made to Red River, and also 217 miles of the most difficult portion of the line in British Columbia, feeling assured that if the Government of Canada carried those works to a successful completion, and were then in a position to hand over to a company that completed work with a large subvention, they might induce capitalists to undertake the rest. That policy was perfectly successful, as they had heard from the author of the paper. The contract signed by him as Minister of Railways, in Batt's Hotel, Dover-street, at the close of 1880, bound Mr. Stephen and his associates to complete the road by the 1st of July, 1891, and as the lecturer had told them, that gigantic work was so far completed as to enable Mr. Donald Smith to drive the last spike last November. As Lord Lorne had said, in his interesting article in "Good Words," this was the most gigantic work of the age, and the building of it in half the time within which the contractors had bound themselves to complete it was a most wonderful achievement. He was sure the remarks of Dr. Edmunds would commend themselves to the consideration of every one present. In this overpopulated country great numbers at the present time were naturally looking abroad to see if some other portion of the world did not present a better field for their industry than they could find at home, and too much importance could not be attached to the fact that, instead of their countrymen being obliged to seek under a foreign flag and in a foreign country the means of improving their position, they could, under the same flag and under British institutions, in this great Canadian North-West, find one of the most inviting fields for their industry that the world could afford. Too much importance could not be attached to the fact that this which was an unknown desert a few years ago now presented, in connection with this

gigantic work, 200 million acres of the finest wheat-growing and fertile lands to be found on the face of the globe. With regard to the climate, he might give an illustration. When they talked about the thermometer going down 30° below zero one naturally felt a shudder, and asked how was it possible to survive; but there was no country in the world which would produce a larger crop of wheat than this fertile valley in the North-West of Canada, and with regard to its suitability for stock, he might mention that from his own personal knowledge of 100 horses which were turned out at the foot of the Rocky Mountains in October, worn out with their season's work, all but one were taken up in the finest condition in the spring without having had the least shelter or care of any kind, or indeed, without having been even seen by civilised eyes in the interval. That showed that, whether as regarded the production of cereals or other crops, or the effect upon animal life, there could be no finer climate, taking it all in all, than this country presented. One word upon a point touched upon by Mr. Begg, but to which too much importance could not be given, viz., the importance to this country of having an alternative route to the great East, and not being dependent on the Suez Canal or on European complications in case of war in India. The advantage of this great trans-continental Canadian Pacific Railway was not only to bring the people of this country 1,000 miles nearer to Hong Kong and Yokohama, than by the route *via* New York and San Francisco, but in the case of European complication, or an obstruction of the Suez Canal, England had a great highway under her own flag from end to end, by which she could send her troops; and by making a *place d'armes* at Halifax or Vancouver, she would be as near striking distance of India as by the nearest European route, which was open to obstruction. With regard to the effect of the opening of this great field for British colonisation on the Empire, and the opening up of a country which would give thoroughly happy and comfortable homes to forty millions of additional subjects; or regarded in the light of affording an alternative line to the East under the British flag, the importance of this great work could not be over-rated. Too much credit could not be given to Sir George Stephen and his associates for the vigour and courage with which they had grappled with this great work, and the service they had performed was inestimable, not only to themselves and their associates, who he believed would reap a rich reward, but for the blessings which had been conferred on their own country and the Empire at large.

Mr. H. C. BEETON, Agent-General of British Columbia, said that the Chairman, who had visited British Columbia on two occasions, knew of what importance the railway was to the Pacific province, as British Columbia had, till recently, made but slow progress. In 1849, the Hudson Bay Company undertook to colonise Vancouver, and at the

end of five years the population did not exceed 450 souls. In 1858, gold was discovered, and when the rich alluvial mines of Cariboo declined, the colony experienced a severe relapse. In 1866, the island and mainland were united under the name of British Columbia. Previous to that, and dating from 1859, there were two separate Governments, one at Victoria, the other at New Westminster, with rival policies, Victoria being a free port, and New Westminster having her tariff. This year British Columbia will be within a fortnight of England, and, after long weary waiting, will be really launched on her career. Looking at her geographical position in the North Pacific, and her resources in coal, timber, minerals and fish, she seems destined to become an important manufacturing and commercial country, trading with China, Japan, and Australia. Turning to the Dominion generally and her great highway, Canada's great work in the future will be the settlement of the North-West. The emigration returns for 1885 from

this country show that 70 per cent. of our people emigrate to the United States, while only 10 per cent. go to Canada. Cannot these figures be altered? Supposing an equal number went to the United States and Canada, it would have given Canada last year 70,000 instead of 20,000 emigrants. It appeared to him, in connection with the peopling of the Canadian North-West, and in colonies generally, that two important problems wait solution, one is the distribution of population, the other the distribution of food. Food was never so abundant and cheap as it is to-day. How to enable the poor to earn it is the question. Let Canada and the Mother Country co-operate in peopling the great Canadian North-West, and try to solve these two problems. By so doing, they will have conferred an everlasting blessing upon humanity.

The motion having been carried unanimously, Mr. BEGG briefly expressed his acknowledgements.

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